UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEANETTE D. RASCHE and WARREN WHITLOCK

Appeal No. 2006 -1534
Application No. 09/829,007

ON BRIEF

Before OWENS, NAPPI, and FETTING, **Administrative Patent Judges**.
FETTING, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 1 through 29 and 35 through 40, which are all of the claims pending in this application.

We AFFIRM.

BACKGROUND

The appellants' invention relates to a system for scoring an asthma severity for a patient. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

> 1. A system for scoring an asthma severity for a patient based on information entered by a user regarding the patient comprising:
>
> means for questioning the user regarding the patient,
>
> means for accumulating a score for at least one indicator based on answers entered by the user to the questions,
>
> means for correlating the accumulated score to at least one indicator level, and
>
> means for informing the user of the at least one indicator level from said correlating means.

PRIOR ART

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Finkelstein et al. (Finkelstein)	6,283,923	September 4, 2001 (filed June 3, 1998)
Brown et al. (Brown '163)	5,879,163	March 9, 1999
Brown (Brown '469)	6,375,469	April 23, 2002 (filed September 13, 1999)

We also make the following art of record, although it is not applied within the opinion.

Soll et al. (Soll)	US2003/0055679 A1	March 20, 2003 (filed April 9, 1999)
Kahn et al. (Kahn)	4,866,635	September 12, 1989
Buffington et al. (Buffington)	6,159,015	December 12, 2000 (filed June 8, 1998)
Presnell et al. (Presnell)	6,182,067	January 30, 2001 (filed May 29, 1998)
Durand et al. (Durand)	6,272,467	August 7, 2001 (filed January 16, 1997)
Olsen et al. (Olsen)	7,048,544	May 23, 2006 (eff. filing November 25, 1998)

Detmer and Shortliffe, (Detmer) *Using the Internet to Improve Knowledge Diffusion in Medicine*, Communications of the ACM, Vol. 40, No. 8, p. 101-108, August 1997

REJECTIONS

Claims 1, 4-8, 10, 12-15, 16-18, and 20-28 stand rejected under 35 U.S.C. § 102(e) as being unpatentable as anticipated by Finkelstein.

Claims 9 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '163.

Claims 11 and 35-40 stand rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '469.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (mailed December 22, 2004) for the reasoning in support of the rejection, and to appellants' brief (filed April 6, 2004) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations that follow.

We first note that the invention is a species of what is broadly referred to in the relevant art as a diagnostic decision support system. That is, the invention is an aid to reaching a diagnostic decision. We further note that the claims only refer to the application of such a system to the field of asthmatic diagnosis in the preambles, and there is no linkage in the bodies of the claim that depend on the narrowing of the claim to the application of asthmatic diagnosis. Therefore, the references to asthmatic diagnosis in the claim preambles are considered to be mere field of use limitations and not constrictive of the claims' scope.

Claims 1, 4-8, 10, 12-15, 16-18, and 20-28 rejected under 35 U.S.C. § 102(e) as being unpatentable as anticipated by Finkelstein.

We note that the appellants argue claims 1, 4, 5, 12-15 and 22 as a group. Accordingly, we select claim 1 as representative of the group.

The appellants argue that claim 1 contains a means plus function limitation, namely "means for questioning the user regarding the patient," that must be construed according to 35 U.S.C. § 112, sixth paragraph. The appellants then argue that such a construction must necessarily limit the questioning to a single setting. The appellants then provide several examples of where the specification supports this limitation that suggest that the questioning is done in a single setting, pointing particularly to paragraphs 11, 12, 51 and 57, and to Figs. 5-8. [See Brief at p. 7]

We note that paragraphs 11, 12 and 57 do indeed support the claim limitation of questioning the user, but mention no particular frequency or time span, or whether this occurs in a single or over multiple settings. Of greater pertinence is paragraph 51, that again supports the activity of questioning the user, but further provides evidence that such questioning might occur over multiple settings by saving questions with the phrase that one of the steps "is temporarily storing the series of answers, although this step may be omitted or may involve storing the answers for use at a later time."

Also, we note that in construing means plus function claim limitations, the statute does not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 52 U.S.P.Q.2D (BNA) 1258 (Fed. Cir. 1999). Any limitation

regarding the number of settings in which questions occur is beyond that necessary to perform the claimed function of questioning the user, and is therefore not incorporated into the structure so construed.

Finally, we note that construction under 35 U.S.C. § 112, sixth paragraph also includes equivalents of the disclosed structure. As the disclosure acknowledges in paragraph 51, saving data for later use is an art recognized equivalent to using data in one setting. Accordingly, we find the appellants' arguments regarding the limitation of the questioning structure to one setting to be unpersuasive.

The appellants next argue that claim 1 "clearly states that the indicator score is based on multiple answers." [See Brief at p. 7]. The appellants go on to argue that Finkelstein describes compiling scores for individual symptoms, but not for combining answers to multiple questions. [See Brief at p. 8]

We note that no such limitation, of an indicator score based on multiple answers, appears explicitly in claim 1. The appellants appear to infer such a limitation from the limitation that the means is "for accumulating a score for at least one indicator based on answers entered by the user to the questions." We first note that this phrase is not subject to construction under 35 U.S.C. § 112, sixth paragraph, because the phrase contains sufficient structure to render construction under 35 U.S.C. § 112, sixth paragraph inapplicable. In particular, the phrase limits to structure of the element described by the phrase to including structural elements of both an accumulator and a data element for a score. We next note that the plural words "answers" and "questions" are not restricted to only those corresponding to the particular indicator in the phrase,

but may be construed to be all of the questions asked during the questioning. That is, the claim phrase may be construed to mean that, from all of the questions and answers provided during the questioning, the claim accumulates a score for at least one indicator based on any of those questions and answers.

As to Finkelstein, it does explicitly recite accumulating a score for each symptom in the computer listings, columns 50-72, in which the score for each symptom is accumulated in the next entry for the matrix "scr" by accumulating the symptom code stored in "scl" with an explicit number. We note that the claim limitation does not indicate what particular operands are placed into the accumulator, but only that an accumulator is used and its operation is "based on" the questions and answers occurring over the session. It is not even necessary that the accumulator take any answer directly into its operation, but only that whatever is accumulated is based on an answer, however tangentially. Finally, we note that, as the examiner points out, Finkelstein describes trend analysis, which implies accumulation of the data within the trend, at column 10. [See Answer at p. 10] Although the appellants do not address this point made by the examiner in the arguments regarding claim 1, they do address it in their arguments to claim 6 and we will consider the argument made there at this point as well. The appellants argue that the trend analysis in Finkelstein is performed by the computer routines in trendpft 534, which only refer to the medical test data physically measured by the medical equipment in Finkelstein, and not to subjective data like that in Finkelstein's symptom diary. [See Brief at p. 9] We note that, irrespective of the pertinence of such a distinction to the claimed subject matter, Finkelstein explicitly asks

the user whether the user is ready for the measurements in col. 23-24, and the scores from the test are based on answers entered by the user to the questions, thus "accumulating a score for at least one indicator based on answers entered by the user to the questions."

Therefore, we find the appellants' arguments as to Finkelstein not describing accumulating a score for at least one indicator based on answers entered by the user to the questions to be unpersuasive.

The appellants next argue that Finkelstein fails to show correlating the accumulated score for the same reason that Finkelstein fails to show accumulating a score. [See Brief at p. 8] We apply the same reasoning as above to this argument, and find it also unpersuasive for the same reason.

The appellants next argue that Finkelstein fails to inform the user because Finkelstein informs the physician and not the client. [See Brief at p. 8] This argument implies that the user is not the physician. We note that Finkelstein explicitly recites that the results may be sent to the patient or the physician. [See col. 4 lines 41-45] Therefore, we find the appellants' argument to be unpersuasive.

As these arguments are all those set forth by the appellants concerning claim 1, and we find all of them unpersuasive, we sustain the examiner's rejection of claim 1 and the claims 4-6, 12-15 and 22 that were grouped with claim 1.

The appellants next argue that, as to claim 6, the trend analysis in Finkelstein is performed by the computer routines in trendpft 534, which only refer to the medical test

data physically measured by the medical equipment in Finkelstein, and not to subjective data like that in Finkelstein's symptom diary. [See Brief at p. 9] We note that Finkelstein explicitly asks the user whether the user is ready for the measurements in col. 23-24, and the scores from the test are based on answers entered by the user to the questions. Therefore, we find the appellants' argument to be unpersuasive and sustain the rejection of claim 6.

The appellants next argue that, as to claim 7, Finkelstein fails to show informing the user. [See Brief at p. 9] As we noted above, Finkelstein explicitly recites that the results may be sent to the patient or the physician. [See col. 4 lines 41-45] Therefore, we find the appellants' argument to be unpersuasive and sustain the rejection of claim 7.

The appellants next argue that, as to claim 8, Finkelstein fails to show allowing the user to adjust an indicator by at least one level. [See Brief at p. 10] We note that Finkelstein allows the user to repeat the test and reenter data which would inherently change the level, and thus allow an increase in the level, at col. 4 lines 35-51. Further, in each of the routines in columns 51-72, Finkelstein asks the user to confirm each answer and allows adjustment if unconfirmed. Therefore, we find the appellants' argument to be unpersuasive and sustain the rejection of claim 8.

The appellants next argue that, as to claims, 16-18, 20, 21 and 23-28, Finkelstein does not teach "accumulating a score for at least one indicator based upon the received answer." [See Brief at p. 11] As we noted above, Finkelstein does explicitly recite accumulating a score for each symptom in the computer listings, columns 50-72, in

which the score for each symptom is accumulated in the next entry for the matrix "scr" by accumulating the symptom code stored in "scl" with an explicit number. Therefore, we find the appellants' argument to be unpersuasive and sustain the rejections of claims 16-18, 20, 21 and 23-28.

The appellants next argue that, as to claim 22, Finkelstein fails to show providing educational material to a patient. As the examiner points out, Finkelstein describes information concerning asthma being provided to the patient at col. 7, lines 34-37. [See Answer at p. 11] We note that such information is fairly characterized as educational, and therefore, we find the appellants' arguments to be unpersuasive and sustain the rejection of claim 22.

Accordingly, we **sustain** the examiner's rejection of claims 1, 4-8, 10, 12-15, 16-18, and 20-28 as rejected under 35 U.S.C. § 102(e) as being unpatentable as anticipated by Finkelstein.

Claims 9 and 19 rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein.

The appellants next argue that, as to claim 9, Finkelstein does not teach "at least one indicator includes at least one of a severity level, a compliance level, and a performance level." [See Brief at p. 12] As the examiner responds, Finkelstein does explicitly recite a severity level at col. 6 lines 19-20 and compliance and performance at col. 7 lines 21-37. Although the appellants argue this is based upon physical characteristics and not questions, Finkelstein explicitly asks the user whether the user is ready for the measurements in col. 23-24, and the scores from the test are based on

answers entered by the user to the questions. Therefore, we find the appellants' argument to be unpersuasive and sustain the rejection of claim 9.

The appellants next argue that, as to claim 19, Finkelstein does not teach "personalizing the assessment questions." [See Brief at p. 12] As the examiner responds, Finkelstein does explicitly personalize in formulating the alert status from background information at col. 6 lines 65-68. Although the appellants argue this is not the personalizing claimed, which might be including a person's name, the claim does not specify any particular manner of personalization and Finkelstein's description may fairly be characterized as personalization. Therefore, we find the appellants' argument to be unpersuasive and sustain the rejection of claim 19.

Accordingly, we **sustain** the examiner's rejection of claims 9 and 19 as rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein.

Claims 11 and 35-40 rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '469.

The appellants next argue that claim 11 is patentable for the same reasons as claim 6 and 7. [See Brief at p. 14] We find the appellant's arguments to be unpersuasive for the same reasons as those for claims 6 and 7 and sustain the rejection of claim 11.

The appellants next argue that claims 35 and 38 to 40 are patentable for the same reasons as argued in the claims addressed above. Although the argument tends to focus on Finkelstein's alert parameters, we note that all of the routines in Finkelstein's columns 51-72 set scores to zero, ask questions, adjust a score for an indicator related

to the question, provide numeric indicator levels for each question based on comparing to the choices presented, and provide the indicator level to the database and ultimately the physician and patient. The one new argument is that Brown does not use the phrase "performance level". [See Brief at p. 14] However, as the examiner responded to claim 9 above, Finkelstein teaches severity, alert and compliance levels. We find the examiner's arguments to be persuasive.

Therefore, we find the appellants' arguments to be unpersuasive and sustain the rejections of claims 35 and 38 to 40.

The appellants next argue that claims 36 and 37 are patentable and repeat the same arguments presented for claims 9 and 19 above. [See Brief at p. 17-18] We find these arguments unpersuasive for the same reasons we noted above in our analysis of claims 9 and 19 and sustain the rejections of claims 36 and 37.

Accordingly, we **sustain** the examiner's rejection of claims 11 and 35-40 as rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '469.

Claims 2 and 3 rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '163.

The appellants next argue that claims 2 and 3 are patentable and repeat the same arguments presented for claims 1 and 9 above. [See Brief at p. 19-20] We further note that although claim 3 includes a limitation that the accumulating means accumulates multiple scores for at least two indicators, this is broader than accumulating multiple scores into the same data field, and embraces the scope of

accumulating multiple scores, each in a separate data field. Certainly the matrix "scr", which accumulates fields each containing a score, that Finkelstein describes in columns 51-72, is fairly within the scope of this limitation. We find these arguments unpersuasive for the same reasons we noted above in our analysis of claims 1 and 9 and sustain the rejections of claims 2 and 3.

Accordingly, we **sustain** the examiner's rejection of claims 2 and 3 as rejected under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '163.

REMARKS

The examiner should consider the additional art made of record with this opinion in further examination of the subject matter. Soll presents a diagnostic decision system that encompasses asthma within its disclosed scope. Kahn presents a diagnostic decision system that provides questions in random sequence. Detmer provides an overview of such diagnostic decision systems. Buffington, Presnell, Durand and Olsen each present different embodiments of self assessment systems that, although not directed to asthma per se, operate according the steps of the broader claimed subject matter, which is not limited by the preamble field of use limitation.

CONCLUSION

To summarize,

- The rejections of claims 1, 4-8, 10, 12-15, 16-18, and 20-28 under 35 U.S.C. § 102 as being unpatentable as anticipated by Finkelstein, are **sustained**.

- The rejections of claims 9 and 19 under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein, are **sustained**.

- The rejections of claims 2 and 3 under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '163, are **sustained**.

- The rejections of claims 11 and 35-40 under 35 U.S.C. § 103 as being unpatentable as obvious over Finkelstein in view of Brown '469, are **sustained**.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

TERRY J. OWENS
Administrative Patent Judge

ROBERT E. NAPPI
Administrative Patent Judge

ANTON W. FETTING
Administrative Patent Judge

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